



A.D. 1845 N° 10,666.

S P E C I F I C A T I O N

OF

JOHN PARSONS,

AND RICHARD CORKE'S DISCLAIMER.

MANUFACTURE OF FUEL.

L O N D O N :

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A.D. 1845 N° 10,666.

Manufacture of Fuel.

PARSONS' SPECIFICATION, AND CORKE'S DISCLAIMER.

SPECIFICATION.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOHN PARSONS, of No. 2, Stones Row, Saint Pancras, in the County of Middlesex, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters
5 Patent under the Great Seal of Great Britain, bearing date at Westminster, the Tenth day of May, in the year of our Lord One thousand eight hundred and forty-five, did give and grant unto me, the said John Parsons, my exors, admors, and assigns, Her especial licence, full power, sole privilege and authority, that I, the said John Parsons, my exors, admors, and assigns,
10 and such others as I, the said John Parsons, my exors, admors, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter, during the term of years therein mentioned, should and lawfully might make, use, exercise, and vend, within that part of the United Kingdom of Great Britain and Ireland called England, the Dominion of
15 Wales, and the Town of Berwick-upon-Tweed, and in the Islands of Jersey, Guernsey, Alderney, Sark, and Man, and also in all Her said Majesty's Colonies and Plantations abroad, my Invention of "CERTAIN IMPROVEMENTS IN THE MANUFACTURE OF FUEL, AND IN APPARATUS FOR THE USE OF THE SAME;" in which said Letters Patent there is contained a proviso that I, the said
20 John Parsons, shall particularly describe and ascertain the nature of my said Invention, and in what manner the same is to be performed, by an instrument

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in writing under my hand and seal, and cause the same to be inrolled in Her said Majesty's High Court of Chancery, within six calendar months next and immediately after the date of the said in part recited Letters Patent, as, reference being thereunto had, will more fully and at large appear.

NOW KNOW YE, that in compliance with the said proviso, I, the said 5 John Parsons, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement (that is to say):—

The nature of my improvements in the manufacture of artificial fuel, consists in the methods employed for combining the materials into masses, and 10 protecting the masses of materials so combined, and thereby producing an artificial fuel more convenient and efficient in its practical applications than the artificial fuel as heretofore manufactured. The artificial fuel, manufactured according to my Invention, may be described generally as consisting of a combination of materials in a comminuted state, made to cohere into a 15 mass by an inflammable cementing composition, such mass being coated over or cased all round with an inflammable composition, protected by sawdust or other substance. The fuel may be formed into cakes, or masses of any convenient size and shape, and stowed away in boxes or heaps, the coating of sawdust or other substance preventing the masses from sticking together; the 20 fuel may be composed of any combustible materials usually employed, and which can either be obtained in, or readily reduced into a comminuted state, as small coal, sawdust, coke, culm, ashes, tan, bark, peat, and peat earths, turf, dry leaves, furze, heath, fir, coves and coppice rakings, also of the husks and refuse of all descriptions of grain and fruits, grains from malting infusions, 25 boiled or damaged hops, and the refuse from the distillation of the schistose slate or schale. These several materials may be employed either alone, or two or more mixed together in combination with the inflammable composition in the manufacture of artificial fuel, as herein-after described; the particular material or materials employed will depend on the facility and cheapness with 30 which they can be procured in any particular locality, and on the purposes to which the fuel is to be applied. When a strong maintaining fuel is required, I employ small coal, with the addition of about one-fourth of clay or marl by measure, except the coal employed in the anthracite; one part of small coal, and two parts of sawdust, by measure, may be employed with great advantage 35 for several igniting purposes; but whatever materials are selected as the basis of the artificial fuel, they must be reduced into a state of comminution, and the small particles so reduced are to be cemented together into a mass by an inflammable composition or cement. The composition or cement employed

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for this purpose I prepare as follows:—To about twenty hundredweight or one ton of either purified pitch, coal, tar, or resin, (but I prefer the latter) I add about a bushel of plaster of Paris, or other of the argillaceous cements, about two pecks of culinary salt, about two pecks of allum pounded, about two pecks
5 of soot or mineral black; instead of the plaster of Paris or other argillaceous cement, a similar quantity of soda and potash, two pecks of each may be employed; (naptha, either crude or disinfected, the residuum of camphine, nitre, and saltpetre, and the oil or fluid obtained by distillation from the schistose slate or schale, either crude or disinfected, may be employed together with or
10 instead of a portion of the pitch, tar, or resin. I intermix these substances taken in the above proportions, and heat them gradually in a boiler, and the heating is to be continued to boiling, or until the scoria or scum that is formed during the early part of the operation has entirely subsided. The mixture is then in a proper state to be applied to the material or mixture of materials
15 constituting the basis of the fuel; this material or mixture of materials is to be put into a pan or trough, or on to a hearth heated by any convenient means, and the material or mixture of materials is to be raised to the temperature of about one hundred and fifty degrees of Fahrenheit, being stirred occasionally during the heating, and to this is to be added the inflam-
20 mable cementing composition, just described, in a boiling state, the whole being stirred about while the hot cementing composition is being added, so as to prevent the mass from burning. When small coal or small coal and sawdust are the materials employed as the basis of the artificial fuel, I use about six quarts of the hot cementing composition for a bushel of the coal or coal and
25 sawdust, and when the temperature of the whole mass is such that a perfect intermixture of all the substances has taken place, the mixture is fit to be formed into cakes or masses by pressure, which is the next operation. For this purpose, moulds or metal frames divided into several compartments, of any convenient size and shape for moulding the above-mentioned mixture, are
30 provided; a little sawdust or other substance, as bran or pollard, is sifted over the moulds or compartments for moulding, which are then filled with the mixture, and a little sawdust or other substance being sifted over the top of the mixture in the moulds, the whole is subjected to pressure by being passed under rollers, or the table of a screw, or other press. The contents of each
35 mould or frame, being turned out, will be found to constitute a compact mass, in which the particles of the materials constituting the bases of the fuel will be cemented together by the setting of the inflammable cementing composition. These compact masses, being allowed to cool, are then dipped in a melting mixture of highly inflammable materials for the purpose of being coated all

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round, or encased in such composition. The composition to be employed for the coating may be the same as that already described as the inflammable cementing mixture, or with the addition of two pounds of plaster of Paris to every eight gallons of the inflammable cementing mixture. This composition being kept at a boiling point, the compact masses or blocks of fuel, formed as 5 just described, are dipped into it by means of a culinder or frame of bars, and being so dipped are withdrawn as quickly as possible and thrown upon a table or inclined plane thickly strewed with sawdust, a screen or sieve above shedding sawdust on these masses, so that they may become thoroughly coated on all sides with the sawdust before the hot inflammable composition has become set. By 10 this process the fuel is surrounded by a strong water-tight casing. The sawdust adds to the strength of the casing of the inflammable composition, affords protection to the fuel, and prevents adhesion in the stowage, and obviates the wasting of the materials by the running of the resin or similar substance during the combustion of the fuel. Instead of sawdust, bran, pollard, or fine 15 chaff may be employed for the purpose of the above-mentioned casing. It will be evident, that the materials employed for the purposes aforesaid and their proportions may be very much varied, without departing from the peculiar features of my Invention, and I would observe that the coal, coal and sawdust, or other materials constituting the basis of the artificial fuel and the 20 component parts of the inflammable cementing composition, may be mixed together cold and then heated to such a temperature as will insure the thorough admixture of all the substances, and the coherence of the particles of the coal, coal and sawdust, or other materials when formed into cakes after pressure, as above described. I would also observe that it is only necessary to 25 use so much of the inflammable cementing composition as will occasion the coherence of the particles of the coal, coal and sawdust, or other materials constituting the basis of the artificial fuel. The quantity necessary for this purpose will vary with the materials employed, as the basis of the fuel consists of artificial fuel; and where no coal is employed I add a larger quantity of 30 the cementing composition, as about seven quarts instead of six to each bushel of the material or mixture of materials constituting the basis of the fuel. The artificial fuel herein-before described, particularly that containing the largest quantity of resinous matter, is peculiarly applicable to the manufacture of gas, in addition to the various other purposes for which artificial 35 fuel may be so advantageously employed.

The casing of an inflammable cement, protected by sawdust or other substance, as above described, may also be applied with great advantage to pieces of coal, coke, and wood, as such fuel will thus be rendered waterproof, and

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even after immersion in water may be ignited with perfect ease and will burn without waste, from the resin or similar substance of the inflammable composition becoming melted and running to waste.

Having now described my improvements in the manufacture of artificial
5 fuel, and in what manner the same are to be carried out in practice, I wish it to be understood that I lay no claim to the use of the substances herein-before mentioned or referred to, except when the same are employed in and for the manufacture of artificial fuel in the manner above described; but I do claim as of my Invention the improvements in the manufacture of artificial fuel,
10 wherein the particles of the materials or mixture of materials constituting the basis of the fuel are cemented together by an inflammable cement and formed into cakes or masses, these masses being cased in a mixture of highly inflammable materials, and protected by sawdust or other substance as above described.

15 And I also claim the casing of coal, coke, and wood with an inflammable composition protected by sawdust, as above described.

In witness whereof, I, the said John Parsons, have hereunto set my hand and seal, the Tenth day of November, in the year of our Lord One thousand eight hundred and forty-five.

20

JOHN (L.S.) PARSONS.

AND BE IT REMEMBERED, that on the Tenth day of November, in the year of our Lord 1845, the aforesaid John Parsons came before our said Lady the Queen in Her Chancery, and acknowledged the Specification aforesaid, and all and every thing therein contained and specified, in form above
25 written. And also the Specification aforesaid was stamped according to the tenor of the Statute made for that purpose.

Enrolled the Tenth day of November, in the year of our Lord One thousand eight hundred and forty-five.

DREW.

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DISCLAIMER.

In the Matter of Letters Patent granted the Tenth day of May,
 One thousand eight hundred and forty-five, to John Parsons, of
 Number 2, Stone's Row, Saint Pancras, in the County of Middlesex,
 Machinist, for "CERTAIN IMPROVEMENTS IN THE MANUFACTURE OF FUEL,
 AND IN APPARATUS FOR THE USE OF THE SAME." 5

DISCLAIMER entered by the Assignee of the said Letters Patent.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, RICHARD
 CORKE, of Tunbridge Wells, in the County of Kent, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria did give and
 grant unto the said John Parsons, his exors, admors, and assigns, Her Letters 10
 Patent under the Great Seal of Great Britain, bearing date at Westminster,
 the Tenth day of May, in the year of our Lord One thousand eight hundred
 and forty-five, for "CERTAIN IMPROVEMENTS IN THE MANUFACTURE OF FUEL, AND
 IN APPARATUS FOR THE USE OF THE SAME:" And whereas the said Letters Patent
 have been duly assigned to me, the said Richard Corke, by Indenture, bearing 15
 date the First day of September, in the year of our Lord One thousand eight
 hundred and forty-five: And whereas, since the grant of the said Letters
 Patent, I have been advised that it is doubtful whether so much of the said
 Invention as is expressed by the words "and in apparatus for the use of the
 same" in the title of the said Letters Patent is of sufficient novelty and 20
 utility to support Letters Patent for such part of the said Invention: And
 whereas I am desirous, for the reasons aforesaid, to enter a Disclaimer of
 such part of the said Invention, and have obtained leave of Her Majesty's
 Attorney-General, certified by his fiat and signature, to enter such Disclaimer:

KNOW YE THEREFORE, that I, the said Richard Corke, for the reasons 25
 aforesaid, do hereby disclaim in the title of the said Invention the words
 "and in apparatus for the use of the same," and I, the said Richard Corke,
 do further declare that my reasons for the said Disclaimer are those above
 stated, and that the said Disclaimer is not such Disclaimer as extends to the
 exclusive right granted by the said Letters Patent. 30

In witness whereof, I, the said Richard Corke, have hereunto set my
 hand, this Tenth day of November, One thousand eight hundred and
 forty-five.

RICH^d CORKE.

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To the Clerk of the Patents of England.

This is to certify, that Richard Corke, of Tunbridge Wells, in the County of Kent, Assignee of the Letters Patent of John Parsons, of Number 2, Stone's Row, Saint Pancras, in the County of Middlesex, Machinist, has
 5 applied to me to enter with you the above written Disclaimer of a certain Invention, for which Letters Patent were duly granted to him, the said John Parsons, under the Great Seal, bearing date the Tenth day of May, One thousand eight hundred and forty-five, and of the Specification enrolled this day. And having considered of the said application and no objection having
 10 been made to the same, I have accordingly granted leave to the said Richard Corke, Assignee of the said John Parsons as aforesaid, to file his said Disclaimer, pursuant to the Statute passed in the 5th & 6th years of the reign of His said late Majesty King William the Fourth, entitled "An Act to amend the Law touching Letters Patent for Inventions."

FRED. THESIGER.

15 Dated this 10th day of November, 1845,
 Temple.

AND BE IT REMEMBERED, that on the Tenth day of November, in the year of our Lord 1845, the aforesaid Richard Corke came before our said
 20 Lady the Queen in Her Chancery, and acknowledged the Disclaimer aforesaid, and all and every thing therein contained and specified, in form above written. And also the Disclaimer aforesaid was stamped according to the tenor of the Statute made for that purpose.

Enrolled the Eleventh day of November, in the year of our Lord One
 25 thousand eight hundred and forty-five.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
 Printers to the Queen's most Excellent Majesty. 1857.

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